dhec
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June 20, 2019

Mr. Ken Mallary
US Environmental Protection Agency
Region 4
61 Forsyth Street SW
Atlanta, GA 30303

Re: Calhoun Park Area Superfund Site
EPA ID No. SCD 987 581 337
Charleston County

OU 2 Intermediate Groundwater Analytical Results- December 2018 dated May 2019 and received June 6, 2018.

Dear Mr. Mallary:

The Division of Site Assessment, Remediation, and Revitalization of the South Carolina Department of Health and Environmental Control (DHEC) has reviewed the referenced OU 2 Intermediate Groundwater Analytical Results- December 2018. The Division offers the following comments:

- Table 1- The title should read "DECEMBER 2018 EVENT".

- Page 3, Subsection 3.1, Paragraph 3, sentence 2 states, "This groundwater high has the effect of bifurcating the trough with groundwater flow directed generally to the north and west". The groundwater contour map for the Middle Intermediate Sand Unit (Figure 2) indicates that bifurcated flow is generally to the northeast and southeast.

- The Division notes numerous statements on pages 4 through 7 that constituents were non-detect. This contradicts the Laboratory Report of Analysis that shows the constituents in question to be greater than the Method Detection Limit (MDL) but less than the Reporting Limit (RL). Specifically:

  - Page 4, Subsection 4.3.1, Bullet 1 states, "2,4-dimethylphenol, benzo(a)pyrene and carbazole were non-detect". Carbazole in BM-03D is 9 ug/L which exceeds the Remedial Goal.
  - Page 5, Subsection 4.3.2, Bullet 2 states, "The remaining three SVOC constituents (2,4-imethylphenol, benzo(a)pyrene, and carbazole) analyzed were non-detect and have been non-detect for a decade". 2, 4 dimethylphenol and carbazole in BM-04D are 0.59 ug/L and 1.5 ug/l, respectively. Benzo(a)pyrene is 0.42 ug/L which exceeds the Remedial Goal.
  - Page 5, Subsection 4.3.2, Paragraph 3, Sentence 4 states, "Benzo(a)pyrene, cabazole, and 2,4-dimethylphenol were non-detect...". 2, 4 dimethylphenol in MM-13C is 5.1 ug/L. Carbazole is 9.1 ug/L which exceeds the Remedial Goal.

- Page 6, Subsection 4.4.1, Paragraph 1, Sentence 3 states, "The remaining three SVOC constituents analyzed (2,4-dimethylphenol, benzo(a)pyrene, and carbazole) were not detected...". 2,4-dimethylphenol and carbazole in BM-10C are 2.6 ug/l and 0.20 ug/L , respectively.

- Page 6, Subsection 4.4.2, Paragraph 1, Sentences 1 and 2 states, "The groundwater sample from well MM-14C indicated all constituents analyzed were non-detect. Benzene has been non-detect at this location for five of the last six sampling events and other constituents have been non-detect since February 2009". Benzene and naphthalene in MM-14C are 3.3 ug/l and 0.32 ug/L , respectively.

- Page 6, Subsection 4.4.2, Bullet 2 states, "...naphthalene was not detected for the fifth consecutive event". Naphthalene in MM-12B is 2.0 ug/L.

- Page 6, Subsection 4.4.2, Bullet 4 states, "Naphthalene was non-detect, consistent with data since March 2012...". Naphtalene in PM-01C is 8.1 ug/L.

- Page 6, Subsection 4.4.3 states, "...constituents were not detected in groundwater samples from sentinel wells LM-08C and NM-06D...". Benzene, ethylbenzene, xylenes, and naphthalene in LM-08C are 3.3 ug/L, 0.26 ug/L, 0.61 ug/L, and 0.13 ug/L, respectively. Naphthalene in NM-06D is 0.11 ug/L.

- Page 6, Subsection 4.5, Paragraph 2, Sentence 1 states, "MM-01D exhibited its second consecutive non-detect result for benzene...". Benzene in MM-01D is 0.19 ug/L.

- Pages 6 and 7, Subsection 4.5, Sentences 2 and 4, state, "Naphthalene continued to be non-detect, which has occurred in nine of the last ten events" and "The other constituents analyzed in MM-16D samples were non-detect". Naphthalene and carbazole in MM-16D are 0.66 ug/l and 1.3 ug/L , respectively.

The Division acknowledges that Apex agreed to state more correctly that constituents that are "non-detect" should be constituents that are "not detected above the reporting limit" in correspondence dated February 27, 2019. This recommendation and other recommendations are to be incorporated in monitoring reports subsequent to the December 2018 sampling event.

- The Division concurs with the recommendation to reduce the OU 2 sampling frequency from semi-annual to annual.

- The Division concurs with the recommendations to reduce the sampling frequency of the sentinel wells from annual to biannual and to eliminate 2,4-dimethylphenol from the annual sampling program.

- The Division concurs with elimination of the 13 of the 14 wells highlighted in Table 3 from the monitoring (gauging) program. DRW-52C should continue to be monitored since it contains 0.23 feet of NAPL and will be the sole middle sand unit well that is monitored in the area near lower sand unit well MM-01D.

- The Division does not concur with removal of MM-14C from the annual sampling program without submittal of additional data. Please submit an historical table with the last two years of sampling analyses. The analyses should be numerical detection results rather than RLs. The Division will reconsider the request to remove MM-14C from the sampling program upon review of the submittal.

Should you have any questions, feel free to contact me at (803) 898-0832 or at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G, Geologist/Hydrologist III
Federal Remediation Section
Division of Site Assessment, Remediation, and Revitalization
Bureau of Land and Waste Management

cc: William Zeli, P.E., Apex Companies, LLC
Tom Effinger, Dominion Energy South Carolina, Inc.
File #54475